

CLAIMS

What is claimed is:

1. A sensor device, comprising:
a sensor element configured to monitor in vivo a physiological parameter associated with a patient; and
a plurality of imagable marker properties.
2. The sensor device of claim 1, wherein the plurality of imagable marker properties comprises a plurality of markers disposed on the sensor device.
3. The sensor device of claim 2, wherein the plurality of markers is disposed on the sensor device in a manner to discern an orientation of the sensor device.
4. The sensor device of claim 3, wherein the plurality of markers is disposed along a length of the sensor device.
5. The sensor device of claim 2, wherein at least one of the plurality of markers can be imaged in at least two imaging modalities.
6. The sensor device of claim 1, further comprising a casing having the plurality of imagable marker properties integrated therewith.
7. The sensor device of claim 6, wherein the plurality of imagable marker properties are integrated in the casing in a manner to discern an orientation of the sensor device.
8. The sensor device of claim 7, wherein at least one of the plurality of imagable marker properties is imagable in at least two imaging modalities.

9. The sensor device of claim 4, wherein the length is less than approximately 26 millimeters.
10. The sensor device of claim 4, wherein the length is less than approximately 20 millimeters.
11. The sensor device of claim 1, wherein the plurality of imagable marker properties comprises a plurality of markers disposed in the sensor device.
12. A method, comprising:
 - implanting a sensor device in a body; and
 - discerning an orientation of the sensor device in the body using an imaging technique.
13. The method of claim 12, wherein the sensor device comprises a plurality of imagable marker properties and wherein discerning comprises imaging the plurality of marker properties.
14. The method of claim 13, wherein the plurality of imagable marker properties are disposed along a dimension of the sensor device and wherein discerning further comprising displaying each of the plurality of imaged marker properties.
15. A method, comprising:
 - situating a sensor device in a body; and
 - identifying a position of the sensor device relative to an internal coordinate system using an imaging technique.
16. The method of claim 15, wherein situating comprises implanting the sensor device in the body.

17. The method of claim 16, wherein implanting comprises injecting the sensor device in the body.
18. The method of claim 15, wherein the sensor device has a length less than approximately 26 millimeters.
19. The method of claim 15, further comprising identifying the position relative to an anatomical landmark.
20. The method of claim 15, further comprising identifying the position relative to an organ.
21. The method of claim 15, further comprising tracking the position of the sensor device over time.
22. The method of claim 15, further comprising tracking the position of the sensor device over time.
23. The method of claim 15, wherein the internal coordinate system is based on a plurality of markers located in the body and wherein identifying comprises identifying the position relative to at least one of the plurality of markers.
24. The method of claim 15, further comprising monitoring in vivo at least one physiological parameter of the body.
25. The method of claim 15, wherein identifying comprises:
 - imaging a plurality of markers and the sensor device in a first imaging modality;
 - relating the position of the sensor device relative to at least one of the plurality of markers;

imaging the plurality of markers in a second imaging modality, wherein the sensor device is not imagable in the second modality; and

determining the position of the sensor device in the coordinate system based on the relating.

26. The method of claim 15, wherein the sensor device comprises a one or more sensor elements and wherein the method further comprises determining the position of at least one of sensor elements relative to the internal coordinate system using the imaging technique.

27. An apparatus, comprising:

means for monitoring in vivo at least one physiological parameter of the body; and

means for identifying a position of the means for monitoring relative to an in vivo coordinate system with an imaging technique.

28. The apparatus of claim 27, further comprising means for establishing the in vivo coordinate system.

29. The apparatus of claim 28, wherein the means for identifying comprises means for correlating the position of the means for monitoring with the in vivo coordinate system.

30. The apparatus of claim 27, further comprising means for determining an orientation of the means for monitoring.

31. A method, comprising:

imaging a plurality of markers and an in vivo landmark in a first imaging modality;

correlating a position of the in vivo landmark relative to at least one of the plurality of markers;

imaging the plurality of markers in a second modality, wherein the an in vivo landmark is not imagable in the second modality; and

determining the position of the an in vivo landmark relative to at least one of the plurality of markers based on the correlating.

32. The method of claim 31, wherein the in vivo landmark is an anatomical landmark.

33. The method of claim 31, wherein the in vivo landmark is a sensor device.

34. The method of claim 33, wherein the sensor device comprises at least one of the plurality of markers.

35. The method of claim 31, wherein the first modality is CT imaging.

36. The method of claim 35, wherein the second modality is ultrasound imaging.

37. The method of claim 35, wherein the second modality is MV imaging.

38. The method of claim 35, wherein the second modality is kV imaging.

39. The method of claim 31, wherein the first modality is magnetic resonance imaging.

40. The method of claim 39, wherein the second modality is MV imaging.

41. The method of claim 39, wherein the second modality is kV imaging.

42. The method of claim 39, wherein the second modality is ultrasound imaging.